

## Prof. Ming-Chung Wu of Chang Gung University (Update 2024/06/04)

### International Conference Papers List

2024-

1. [Ming-Chung Wu\\*](#), Yin-Hsuan Chang, Yuan-Yu Chiu, Shih-Hsuan Chen, Ying-Han Liao, and Shun-Hsiang Chan, "Lead-Reduced Halide Perovskite Solar Cells-Predicting the Quality of Photovoltaic Materials with Photo-Assisted Kelvin Probe Force System", **2024 E-MRS European Materials Research Society Spring Meeting (E-MRS 2024)**, May. 27-31, Strasbourg, France. **(Oral Presentation)**
2. Yin-Hsuan Chang, Ting-Han Lin, Kai-Chi Hsiao, Jia-Mao Chang, Ying-Han Liao, and [Ming-Chung Wu\\*](#), "Surface-Enhanced Raman Scattering Detection Platform by Using Self-Precipitation Au Nanoparticles on TiO<sub>2</sub> Nanofibers", **2024 E-MRS European Materials Research Society Spring Meeting (E-MRS 2024)**, May. 27-31, Strasbourg, France.
3. [Ming-Chung Wu\\*](#), Shih-Hsuan Chen, Shun-Hsiang Chan, Yuan-Yu Chiu, Ting-Han Lin, Yin-Hsuan Chang, Ying-Han Liao, and Ku-Mun Lee\*, "Lead-Reduced Halide Perovskite Solar Cells-Predicting the Quality of Photovoltaic Materials with Photo-Assisted Kelvin Probe Force System", **2024 IC ME&D The 34th International Conference on Molecular Electronics and Devices (IC ME&D 2024)**, May. 9-10, Pohang, Korea.
4. Yin-Hsuan Chang, Ting-Han Lin, Kai-Chi Hsiao, Jia-Mao Chang, and [Ming-Chung Wu\\*](#), "A Facile Platform for Surface-Enhanced Raman Scattering Detection by Self-Precipitation Au Nanoparticles on TiO<sub>2</sub> Nanofibers", **2024 JSAP The 71<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2024)**, Mar. 22-25, Tokyo, Japan. **(Oral Presentation)**
5. Ze-Han Wu, Jia-Mao Chang, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Construction of 2D/2D Bi<sub>2</sub>Se<sub>3</sub>/SBI Topological Heterostructure for Photocatalytic Degradation of Organic Pollutants", **2024 JSAP The 71<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2024)**, Mar. 22-25, Tokyo, Japan.
6. Wei-Zhe Lin, Kai-Chi Hsiao, Ting-Han Lin, Kuo-Ping Chiang, and [Ming-Chung Wu\\*](#), "Development of Heat-Resistant Naphthalene-Based Epoxy Resin with Ag-TiO<sub>2</sub> Nanocomposite for Enhanced Surface Hydrophilicity in Coatings", **2024 JSAP The 71<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2024)**, Mar. 22-25, Tokyo, Japan.
7. Hong-Yi Lin, Kai-Chi Hsiao, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Enhancing the Power Conversion Efficiency of Perovskite Solar Cells through A Chelating Molecules-Based Strategy", **2024 JSAP The 71<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2024)**, Mar. 22-25, Tokyo, Japan. **(Oral Presentation)**
8. Yen-Chang Chen, Ting-Han Lin, Jia-Mao Chang, and [Ming-Chung Wu\\*](#), "Enhanced Photo-Piezocatalytic Performance through Synergistic Effects for Silver-Modified BaTiO<sub>3</sub>/TiO<sub>2</sub> Heterostructure", **2024 JSAP The 71<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2024)**, Mar. 22-25, Tokyo, Japan. **(Poster Award)**

2023-

9. [Ming-Chung Wu\\*](#), "Lead-Reduced Halide Perovskite Solar Cells with Photo-Assisted Kelvin Probe Microscopy", **2023 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2023)**, Nov. 26-Dec. 1, Boston, Massachusetts, United States of America. (**Invited Speaker**)
10. [Ming-Chung Wu\\*](#), Kai-Chi Hsiao, Yin-Hsuan Chang, Jia-Mao Chang, and Ting-Han Lin, "Characterization of Ag<sub>3</sub>BiI<sub>6</sub> Rudorffite Absorber for Ambient-Air-Stable, Lead-Free, and Efficiency Solar Cells through Scanning Analyzer", **2023 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2023)**, Nov. 26-Dec. 1, Boston, Massachusetts, United States of America.
11. [Ming-Chung Wu\\*](#), Yin-Hsuan Chang, Yi-Jing Lu, Kai-Chi Hsiao, Ting-Han Lin, Jia-Mao Chang, and Ying-Han Liao, "Optimizing CO<sub>2</sub> Photoreduction in Freestanding Silver Bismuth Iodide/Nanocellulose Films through Incident Light Modulation and Integration of Gold Nanoparticles", **2023 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2023)**, Nov. 26-Dec. 1, Boston, Massachusetts, United States of America.
12. Ting-Han Lin, Jia-Mao Chang, Yi-Lin Wang, Kai-Chi Hsiao, Kun-Mu Lee, and [Ming-Chung Wu\\*](#), "Exploring Photo-Piezocatalysis in Heterostructured Barium Titanate and Titanium Dioxide: Insights from Photo-Triggered Contact Potential Differences", **2023 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2023)**, Nov. 26-Dec. 1, Boston, Massachusetts, United States of America.
13. Yin-Hsuan Chang, Rei-Yang Li, Ying-Han Liao, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Machine Learning-Based Prediction of Crystal Structure Proportions in Ag-TiO<sub>2</sub> Nanofibers for Enhanced Photocatalytic Activity", **2023 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2023)**, Nov. 26-Dec. 1, Boston, Massachusetts, United States of America.
14. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, Kai-Chi Hsiao, and [Ming-Chung Wu\\*](#), "Gas-Solid Phase Reaction-Driven CO<sub>2</sub> Reduction: Exploring the Photocatalytic Potential of Silver-Bismuth-Iodide Rudorffite", **2023 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2023)**, Nov. 26-Dec. 1, Boston, Massachusetts, United States of America.
15. Yu-Chi Peng, Kuo-Ping Chiang, Yen-Chang Chen, Jia-Mao Chang, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Enhanced Solar-Driven Photocatalytic Hydrogen Production through Incorporation of ZnIn<sub>2</sub>S<sub>4</sub> with BaTiO<sub>3</sub> Piezocatalyst", **2023 MRSTIC Materials Research Society-Taiwan International Conference (MRSTIC 2023)**, Nov. 17-20, Hsinchu, Taiwan.
16. Yen-Chang Chen, Jia-Mao Chang, Ting-Han Lin, Yi-Lin Wang, and [Ming-Chung Wu\\*](#), "Construction of BaTiO<sub>3</sub>/TiO<sub>2</sub> Heterostructures through Varied TiO<sub>2</sub> Templates for Enhanced Piezocatalytic Performance", **2023 MRSTIC Materials Research Society-Taiwan International Conference (MRSTIC 2023)**, Nov. 17-20, Hsinchu, Taiwan.
17. [Ming-Chung Wu\\*](#), Ying-Han Liao, Yin-Hsuan Chang, Shih-Hsuan Chen, Ching-Mei Ho, Shan-Hsiang Chan, Yu-Ching Huang, and Kun-Mu Lee, "High-Performance Perovskite Solar Cells Based on Various Metal-Doped TiO<sub>2</sub> Electron Transport Layer", **2023 PVSEC-34 The 34<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-34 2023)**, Nov. 6-10, Shenzhen, China.
18. Ying-Han Liao, Kai-Chi Hsiao, Ching-Mei Ho, Ting-Han Lin, Shih-Hsuan Chen, Yin-Hsuan Chang, Jao-Mao Chang, Tz-Feng Lin, Yu-Ching Huang, Kun-Mu Lee, and [Ming-Chung Wu\\*](#), "Ceiling of Barium Substitution for B-site Cation in Organometal Halide Perovskite Solar Cells", **2023 PVSEC-34 The 34<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-34 2023)**, Nov. 6-10, Shenzhen, China.
19. Yin-Hsuan Chang, Ting-Hung Hsieh, Kai-Chi Hsiao, Ting-Han Lin, [Ming-Chung Wu\\*](#), and Kai-Hsiang Hsu\*, "Electrospun Nanocomposite Fibers for Exhaled Breath Biomarker Detection", **2023 IEDMS International Electron Devices & Materials Symposium (IEDMS 2023)**, Oct. 19-20, Kaohsiung, Taiwan.

20. Yin-Hsuan Chang, Ting-Han Lin, Kai-Chi Hsiao, Jao-Mao Chang, and [Ming-Chung Wu\\*](#), "Self-Precipitation Au Nanoparticles on TiO<sub>2</sub> Nanofibers for Surface-Enhanced Raman Scattering Detection", **2023 IEDMS International Electron Devices & Materials Symposium (IEDMS 2023)**, Oct. 19-20, Kaohsiung, Taiwan.
21. [Ming-Chung Wu\\*](#), Yin-Hsuan Chang, Yi-Jing Lu, Kai-Chi Hsiao, and Ting-Han Lin, "Enhancing CO<sub>2</sub> Photoreduction via Incident Light Modulation in Silver Bismuth Iodide/Nanocellulose Films and the Integration of Gold Nanoparticles", **2023 JSAP The 84<sup>th</sup> Japan Society of Applied Physics Autumn Meeting (JSAP 2023)**, Sep. 19-23, Kumamoto, Japan.
22. Yin-Hsuan Chang, Ting-Han Lin, Kai-Chi Hsiao, Jia-Mao Chang, and [Ming-Chung Wu\\*](#), "Surface Self-Precipitation Au Nanoparticles on TiO<sub>2</sub> Nanofibers for Surface-Enhanced Raman Scattering Detection of Environmental Hazards", **2023 JSAP The 84<sup>th</sup> Japan Society of Applied Physics Autumn Meeting (JSAP 2023)**, Sep. 19-23, Kumamoto, Japan.
23. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, Kai-Chi Hsiao, and [Ming-Chung Wu\\*](#), "Exploring Photo-Piezocatalysis in Heterostructured Barium Titanate and Titanium Dioxide: Insights from Photo-Triggered Contact Potential Differences", **2023 JSAP The 84<sup>th</sup> Japan Society of Applied Physics Autumn Meeting (JSAP 2023)**, Sep. 19-23, Kumamoto, Japan. (Oral Presentation)
24. Ting-Han Lin, Kuo-Ping Chiang, Jia-Mao Chang, Kun-Mu Lee, and [Ming-Chung Wu\\*](#), "Multidimensional Ternary Heterostructured Self-Precipitated Ag Nanoparticles on TiO<sub>2</sub>@SrTiO<sub>3</sub> for Photoreforming of Plastics Face Mask to Hydrogen", **2023 MRS Materials Research Society Spring Meeting & Exhibit (MRS 2023)**, Apr. 10-15, San Francisco, California, United States of America.
25. Kai-Chi Hsiao, Ting-Han Lin, Wei-Fang Su, and [Ming-Chung Wu\\*](#), "Chloride Gradient Renders Carrier Extraction of Hole for High V<sub>oc</sub> and Efficient Inverted Organometal Halide Perovskite Solar Cell", **2023 MRS Materials Research Society Spring Meeting & Exhibit (MRS 2023)**, Apr. 10-15, San Francisco, California, United States of America.
26. Yin-Hsuan Chang, Shih-Hsuan Chen, Ching-Mei Ho, Shun Hsiang Chan, Ying-Han Liao, and [Ming-Chung Wu\\*](#), "Mechanism Study of High Efficiency Perovskite Solar Cells Based on Planar or Mesoporous Metal-Doped TiO<sub>2</sub> Electron Extraction Layer", **2023 MRS Materials Research Society Spring Meeting & Exhibit (MRS 2023)**, Apr. 10-15, San Francisco, California, United States of America.
27. Jia-Mao Chang, Kai-Chi Hsiao, Ching-Mei Ho, Shun-Hsiang Chan, Kun-Mu Lee, and [Ming-Chung Wu\\*](#), "Realize the Counterbalance Between Sustainability And Photovoltaic Performance of Organometal Halide Perovskite Solar Cell", **2023 MRS Materials Research Society Spring Meeting & Exhibit (MRS 2023)**, Apr. 10-15, San Francisco, California, United States of America.
28. Yin-Hsuan Chang, Ting-Hung Hsieh, Kai-Chi Hsiao, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Electrospun Sensing Materials for Monitoring Exhaled Diabetes Biomarker", **2023 JSAP The 70<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2023)**, Mar. 15-18, Tokyo, Japan. (Oral Presentation)
29. Ying-Han Liao, Shih-Hsuan Chen, Ching-Mei Ho, Shun-Hsiang Chan, and [Ming-Chung Wu\\*](#), "Interface Engineering for Achieving Efficient and Low Hysteretic Behavior Perovskite Solar Cells Based on TiO<sub>2</sub> Mesopores Electron Extraction Layer", **2023 JSAP The 70<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2023)**, Mar. 15-18, Tokyo, Japan. (Oral Presentation)
30. Jia-Mao Chang, Ting-Han Lin, Yin-Hsuan Chang, and [Ming-Chung Wu\\*](#), "Silver Bismuth Iodide Rudorffite for Photocatalytic CO<sub>2</sub> Reduction", **2023 JSAP The 70<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2023)**, Mar. 15-18, Tokyo, Japan. (Oral Presentation)

31. Yuan-Yu Chiu, Kai-Chi Hsiao, Ching-Mei Ho, Shih-Hsuan Chen, and [Ming-Chung Wu\\*](#), "2-Chloroethyl Vinyl Ether Chain-Grafted Carbazole Derivatives Interlayer Enhances Power Conversion Efficiency of Perovskite Solar Cells", **2023 JSAP The 70<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2023)**, Mar. 15-18, Tokyo, Japan.
32. Ting-Hung Hsieh, Kai-Chi Hsiao, Ting-Han Lin, Yin-Hsuan Chang, and [Ming-Chung Wu\\*](#), "Electrospun Ag/PVP/PMMA Porous Nanofibers for Monitoring Exhaled Diabetes Biomarker", **2023 JSAP The 70<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2023)**, Mar. 15-18, Tokyo, Japan.
33. Yi-Lin Wang, Jia-Mao Chang, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "BaTiO<sub>3</sub>/TiO<sub>2</sub> Nanocomposite for Piezo-Photocatalytic Wastewater Treatment", **2023 JSAP The 70<sup>th</sup> Japan Society of Applied Physics Spring Meeting (JSAP 2023)**, Mar. 15-18, Tokyo, Japan.

## 2022-

34. Kun-Mu Lee\*, Seungjun Ahn, and [Ming-Chung Wu](#), "Enhanced Efficiency and Stability of Quasi-2D/3D Perovskite Solar Cells by Blade Coating Method", **2022 PVSEC-33 The 33<sup>rd</sup> International Photovoltaic Science and Engineering Conference (PVSEC-33 2022)**, Nov. 13-17, Nagoya, Japan.
35. Yin-Hsuan Chang, Shun-Hsiang Chan, Yi-Ying Li, Shih-Hsian Chen, Ching-Mei Ho, Kai-Chi Hsiao, and [Ming-Chung Wu\\*](#), "Defect Passivation Toward High-Performance Perovskite Solar Cells", **2022 ICGET-TW The 2022 International Conference on Green Electrochemical Technologies and the 2022 Annual Meeting of Electrochemical Society of Taiwan (ICGET-TW 2022)**, Nov. 10-12, Hsinchu, Taiwan.
36. Tzu-Chuan Yang, Ping-Jung Huang, Peng-Nang Chen, Tzu-Wei Hsu, [Ming-Chung Wu\\*](#), and Jer-Chyi Wang, "Enhanced Output Performance of P(VDF-TrFE) Piezoelectric Nanogenerators with DMF and Toluene Co-Solvent Dissolving Process", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan.
37. Shih-Cheng Tsao, Yi Fu, Tzu-Chuan Yang, Peng-Nang Chen, Tzu-Wei Hsu, [Ming-Chung Wu\\*](#), and Jer-Chyi Wang, "Thickness Dependence of Resistive Switching Characteristics in Flexible Cu/MDMP-PPV/ITO ReRAMs", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan. **(Oral Presentation)**
38. Ying-Han Liao, Shih-Hsuan Chen, Ching-Mei Ho, Shun-Hsiang Chan, and [Ming-Chung Wu\\*](#), "High Efficiency Perovskite Solar Cells based on Planar or Mesoporous Metal Doping TiO<sub>2</sub> Electron Extraction Layer", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan. **(Oral Presentation)**
39. Yin-Hsuan Chang, Ting-Hung Hsieh, Kai-Chi Hsiao, and [Ming-Chung Wu\\*](#), "Exhaled Breath Sensor Based on an Electrospun Nanofiber-Based Sensing Materials for Non-Invasive Diagnostic Applications", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan.
40. Kai-Chi Hsiao, Shun-Hsiang Chan, Wei-Cheng Chen, Tzu-Hao Lin, Kun-Mu Lee, and [Ming-Chung Wu\\*](#), "Realize the Counterbalance Between Sustainability and Photovoltaic Performance of Organometal Halide Perovskite Solar Cell", **2022 IEDMS International Electron Devices & Materials Symposium (IEDMS 2022)**, Oct. 27-28, Nantou, Taiwan. **(Oral Presentation)**

## 2021-

41. Jia-Mao Chang, Ting-Han Lin, Kou-Ping Chiang, and [Ming-Chung Wu\\*](#), "Vapor-Assisted Synthesis of Novel Silver Bismuth Iodide Crystal for Efficient Photocatalytic CO<sub>2</sub> Reduction", **2021 IEDMS International Electron Devices & Materials Symposium (IEDMS 2021)**, Nov. 18-19, Kaohsiung, Taiwan.
42. Yu-Hsiang Chang, Yen-Fu Yu, Kai-Chi Hsiao, Shih-Hsuan Chen, and [Ming-Chung Wu\\*](#), "Enhance Power Conversion Efficiency of Non-Toxic Rudorfittes Solar Cells Through Modification of Carrier Transporting Layer", **2021 IEDMS International Electron Devices & Materials Symposium (IEDMS 2021)**, Nov. 18-19, Kaohsiung, Taiwan. **(Excellent Poster Paper Award)**
43. Tien-Hao Chen, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Synthesis of Sulfur-Vacancy Defects on SnS<sub>2</sub>/Carbonized CNF Nanocomposite Film for Photocatalytic Application", **2021 IEDMS International Electron Devices & Materials Symposium (IEDMS 2021)**, Nov. 18-19, Kaohsiung, Taiwan.
44. Yu-Ching Huang\*, Yu-Hsiang Cheng, Zih-Ting Chen, Zhi-Hao Huang, Kun-Mu Lee, and [Ming-Chung Wu\\*](#), "Study of the Conducting Polymer as the Interfacial Buffer Layer of Screen-Printed Electrodes for Perovskite Solar Cells", **2021 TACT International Thin Films Conference (TACT 2021)**, Nov. 15-18, Virtual Conference.
45. Kou-Ping Chiang, Ting-Han Lin, Yin-Hsuan Chang, Jia-Mao Chang, Kai-Chi Hsiao, and [Ming-Chung Wu\\*](#), "Enhanced Photocatalytic CO<sub>2</sub> Reduction Activity of Silver-Bismuth Iodide Decorated TiO<sub>2</sub> NFs by Chemical Vapor Deposition", **2021 MRSTIC Materials Research Society-Taiwan International Conference (MRSTIC 2021)**, Nov. 13-17, Virtual Conference.
46. Jia-Mao Chang, Ting-Han Lin, Kou-Ping Chiang, and [Ming-Chung Wu\\*](#), "Manipulating the Microstructure of Novel Silver Bismuth Iodide Crystal for Efficient Photocatalytic CO<sub>2</sub> Reduction", **2021 MRSTIC Materials Research Society-Taiwan International Conference (MRSTIC 2021)**, Nov. 13-17, Virtual Conference.
47. Ting-Hun Hsieh, Yin-Hsuan Chang, Ting-Han Lin, and [Ming-Chung Wu\\*](#), "Ultra-Sensitive Breath Acetone Detection by Polymer Nanocomposite Sensing Material for Non-Invasive Diabetics Health Monitoring", **2021 MRSTIC Materials Research Society-Taiwan International Conference (MRSTIC 2021)**, Nov. 13-17, Virtual Conference. **(First Prize)**

## 2020-

48. Ting-Han Lin, Duy Linh Vu, [Ming-Chung Wu\\*](#), and Chao-Sung Lai, "Using Electrospun PANI/P3TI/PMMA Fibers for Highly-Sensitive Detection of Volatile Organic Compounds Vapor", **2020 ICSS International Conference on Smart Sensors, 25<sup>th</sup> Symposium of Association of Chemical Sensors in Taiwan, and 23<sup>rd</sup> Nano Engineering and Microsystem Technology Conference (ICSS 2020)**, Oct. 19-20, Kaohsiung, Taiwan. **(Oral Presentation) (Best Oral Paper Award)**
49. Chi-Hung Lin, [Ming-Chung Wu\\*](#), Ding-Hong Xie, and Chao-Sung Lai, "Detection of Volatile Organic Compounds Using Aligned Ag/QR/PMMA Freestanding Fibrous Film", **2020 ICSS International Conference on Smart Sensors, 25<sup>th</sup> Symposium of Association of Chemical Sensors in Taiwan, and 23<sup>rd</sup> Nano Engineering and Microsystem Technology Conference (ICSS 2020)**, Oct. 19-20, Kaohsiung, Taiwan.
50. Meng-Huan Jao, Shun-Hsiang Chan, [Ming-Chung Wu\\*](#), and Chao-Sung Lai, "Pseudopotential Generated Element Code as Efficient Descriptor to Predict Material Properties", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
51. Shun-Hsiang Chan, Meng-Huan Jao, [Ming-Chung Wu\\*](#), and Chao-Sung Lai, "Enhanced Photovoltaic Performance of 2D/3D Ba-Doped Perovskite Solar Cells by Phenethylammonium Chloride Addition", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan. **(Oral Presentation)**

52. Yin-Hsuan Chang, Ting-Han Lin, Yu-Han Liao, and [Ming-Chung Wu\\*](#), "Efficient Removal of Organic Pollutants with Reusable Cellulose Nanofiber/Titanium Dioxide Nanofiber Composite Film", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  53. Qian-Han Wang, Shih-Hsuan Chen, and [Ming-Chung Wu\\*](#), "Using Composition Engineering to Enhance Photovoltaic Performance of Lead-Free Silver Bismuth Iodide Solar Cells", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  54. Yen-Fu Yu, Shih-Hsuan Chen, and [Ming-Chung Wu\\*](#), "Improved the Photovoltaic Performance of Ag<sub>3</sub>BiI<sub>6</sub> Solar Cells by Band Alignment Engineering", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  55. Yu-Zhe Liu, Kun Mu Lee\*, and [Ming-Chung Wu\\*](#), "Sequential Preparation of Fluorine-Doped Tin Oxide Films for High-Efficiency Perovskite Solar Cells", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  56. Ya-Ting Chan, Yi-Pei Jiang, Yi Fu, [Ming-Chung Wu](#), Kuo-Hsuan Chang, and Jer-Chyi Wang\*, "Effects of Electrode Materials on SiO<sub>2</sub> Nanoparticle Incorporated Ionic Liquid/Poly(Vinylidene Fluoride) Actuators", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  57. Tzu-Chuan Yang, Rajat Subhra Karmaker, Shih-Hsuan Chen, Yu-Jen Lu, [Ming-Chung Wu](#), and Jer-Chyi Wang\*, "Superior Characteristics of MDMO-PPV Piezoresistive Pressure Sensors with 1x1 Cross-Point Electrode Structure", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  58. Yi Fu, Yu-Hua Liu, Han-Hsiang Tai, Kuo-Hsuan Chang, [Ming-Chung Wu](#), and Jer-Chyi Wang\*, "Gold Nanoparticles Incorporated PEG Tactile Sensing Unit for the Implementation in Diagnosis of Parkinson's Disease", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  59. Ishita Chakraborty, [Ming-Chung Wu](#), and Chao-Sung Lai\*, "PDMS@TiO<sub>2</sub> NPs Composite Based High Performance TENG", **2020 IEDMS International Electron Devices & Materials Symposium (IEDMS 2020)**, Oct. 15-16, Taoyuan, Taiwan.
  60. [Ming-Chung Wu\\*](#), Kai-Chi Hsiao, Yin-Hsuan Chang, and Krisztián Kordás, "Photo-Kelvin Probe Force Microscopy Study on Carrier Transport Mechanism of Core/Shell Heterostructure TiO<sub>2</sub> Photocatalysts", **2020 CCE IV International Conference on Catalysis and Chemical Engineering (CCE 2020)**, Feb. 24-26, Los Angeles, California, United States of America. (Oral Presentation)
  61. Ting-Han Lin, Yin-Hsuan Chang, Ching-Ting Chiu, and [Ming-Chung Wu\\*](#), "Construction of 2D/1D g-C<sub>3</sub>N<sub>4</sub>/TiO<sub>2</sub> with Z-Scheme Heterostructure for Efficient Water Splitting", **2020 CCE IV International Conference on Catalysis and Chemical Engineering (CCE 2020)**, Feb. 24-26, Los Angeles, California, United States of America. (Oral Presentation)
  62. Yin-Hsuan Chang, Ting-Han Lin, Yu-Han Liao, Ying-Han Liao, and [Ming-Chung Wu\\*](#), "Cellulose Nanofiber/Titanium Dioxide Nanowire Film for Reusable Organic Pollutant Photosdegradation", **2020 CCE IV International Conference on Catalysis and Chemical Engineering (CCE 2020)**, Feb. 24-26, Los Angeles, California, United States of America. (Oral Presentation)
- 2019-**
63. Ting-Han Lin, Yu-Han Liao, Yin-Hsuan Chang, Ying-Han Liao, and [Ming-Chung Wu\\*](#), "Hierarchically Cellulose Nanofiber/Titanium Dioxide Nanowire Film with Morphological Matching Forreusable Organic Pollutant Photodegradation", **2019 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2019)**, Dec. 1-6, Boston, Massachusetts, United States of America.

64. Ming-Chung Wu\*, Yen-Tung Lin, Shih-Hsuan Chen, Ying-Han Liao, and Shun-Hsiang Chan, "High Power Conversion Efficiency of Perovskite Solar Cells Based on Low-Temperature Zn-Doped TiO<sub>2</sub> Electron Extraction Layer", **2019 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2019)**, Dec. 1-6, Boston, Massachusetts, United States of America.
65. Chi-Hung Lin, Ming-Chung Wu\*, Tz-Feng Lin, Shun-Hsiang Chan, Ting-Han Lin, Kai Wang, and Chao-Sung Lai, "Ultrasensitive Detection of Volatile Organic Compounds by Freestanding Aligned Ag/CdSe-CdS/PMMA Texture with Double-Side UV-Ozone Treatment", **2019 MRS Materials Research Society Fall Meeting & Exhibit (MRS 2019)**, Dec. 1-6, Boston, Massachusetts, United States of America.
66. Ting-Han Lin, Yu-Han Liao, Yin-Hsuan Chang, and Ming-Chung Wu\*, "Hierarchically Cellulose Nanofiber/TiO<sub>2</sub> Nanofiber Composite Film for The Reusable Organic Pollutant Photodegradation", **2019 APAM The Congress of Asia Pacific Academy of Materials (APAM 2019)**, Nov. 15-18, Guangzhou, China. (Oral Presentation)
67. Yin-Hsuan Chang, Chi-Hung Lin, Tz-Feng Lin, Shun-Hsiang Chan, Ting-Han Lin, Kai Wang, Chao-Sung Lai, and Ming-Chung Wu\*, "Efficient Polarization-Selective CdSe-CdS/PMMA Sensing Material for Detection of Volatile Organic Compounds Detection", **2019 APAM The Congress of Asia Pacific Academy of Materials (APAM 2019)**, Nov. 15-18, Guangzhou, China.
68. Shih-Hsuan Chen, Yen-Tung Lin, and Ming-Chung Wu\*, "Control Perovskite Crystallization via Interface Engineering for Highly Efficient Low-Temperature Perovskite Solar Cells", **2019 A-COE The 11<sup>th</sup> Asian Conference on Organic Electronics (A-COE 2019)**, Nov. 6-9, New Taipei, Taiwan. (Excellent Poster Award)
69. Ching-Mei Ho, Shih-Hsuan Chen, and Ming-Chung Wu\*, "Two-Dimensional Additive Promoting Crystal Growth for High-Performance Perovskite Solar Cells", **2019 A-COE The 11<sup>th</sup> Asian Conference on Organic Electronics (A-COE 2019)**, Nov. 6-9, New Taipei, Taiwan.
70. Chi-Hung Lin, Ting-Han Lin, Shun-Hsiang Chan, Yin-Hsuan Chang, Tz-Feng Lin, Ziming Zhou, Kai Wang, Chao-Sung Lai, and Ming-Chung Wu\*, "Highly Sensitive Freestanding Ag/CdSe-CdS/PMMA Sensors for Volatile Organic Compounds Detection", **2019 FAPS The 6<sup>th</sup> Federation of Asian Polymer Societies Polymer Congress (FAPS 2019)**, Oct. 27-30, Taipei, Taiwan.
71. Yin-Hsuan Chang, Yi-Ying Li, Shun-Hsiang Chan, and Ming-Chung Wu\*, "Enhanced Photovoltaic Performance Lead-Reduced Perovskite Solar Cells by Polymer Additives", **2019 FAPS The 6<sup>th</sup> Federation of Asian Polymer Societies Polymer Congress (FAPS 2019)**, Oct. 27-30, Taipei, Taiwan. (Oral Presentation)
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88. Ching-Mei Ho, Shan-Hsiang Chan, and [Ming-Chung Wu\\*](#), "Fabrication of Lead-Free (CH<sub>3</sub>NH<sub>3</sub>)<sub>3</sub>Bi<sub>2</sub>I<sub>9</sub> Solar Cell Using Anti-Solvent Engineering Treatment", **2018 JSAP The 79<sup>th</sup> Japan Society of Applied Physics Autumn Meeting (JSAP 2018)**, Sep. 18-21, Nagoya, Japan. **(Oral Presentation)**
89. Chi-Hung Lin, Shan-Hsiang Chan, Ching-Ying Chiu, and [Ming-Chung Wu\\*](#), "Etching Effect on Electrospun Ag/QR/PMMA Freestanding Film for Volatile Organic Compounds Detection", **2018 JSAP The 79<sup>th</sup> Japan Society of Applied Physics Autumn Meeting (JSAP 2018)**, Sep. 18-21, Nagoya, Japan. **(Oral Presentation)**
90. [Ming-Chung Wu\\*](#), "Enhanced PCE of Perovskite Solar Cells by Tuning Perovskite-Structure Absorber and TiO<sub>2</sub>-Based Electron Transport Layer", **2018 International Conference of Frontier Materials and Green Materials**, Aug 14, Taipei, Taiwan. **(Invited Speaker)**
91. [Ming-Chung Wu\\*](#), Tzu-Hao Lin, Shun-Hsiang Chan, Ying-Han Liao, and Yin-Hsuan Chang, "Enhanced Photovoltaic Performance of Perovskite Solar Cells Based on Alkaline Earth Metal-Doped Perovskite-structured Absorber and Metal-Doped TiO<sub>2</sub> Hole Blocking Layer", **2018 Chinese Symposium on Photocatalytic Materials (2018 CSPM1)**, July 26-29, Wuhan, China. **(Invited Speaker)**
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95. Shun-Hsiang Chan, Shih-Hsuan Chen, Kun-Mu Lee, Wei-Fang Su, and [Ming-Chung Wu\\*](#), "High Power Conversion Efficiency of Perovskite Solar Cells Using Mesoscopic Zn-Doped TiO<sub>2</sub> as Electron Transport Layer", **2018 The 6<sup>th</sup> International Conference on the Characterization and Control of Interfaces for High Quality Advanced Materials (2018 ICCCI)**, July 9-12, Kurashiki, Japan. **(Oral Presentation)** **【106-2221-E-182-057-MY3】**
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97. Yu-Han Liao, Ting-Han Lin, Kou-Ping Chiang, and [Ming-Chung Wu\\*](#), "Preparation and Photocatalytic Performance of TiO<sub>2</sub>/Cellulose Nanofibers Composite Film", **2018 The 6<sup>th</sup> International Conference on the Characterization and Control of Interfaces for High Quality Advanced Materials (2018 ICCCI)**, July 9-12, Kurashiki, Japan. **(Oral Presentation)**

98. Ying-Han Liao, Shun-Hsiang Chan, [Ming-Chung Wu\\*](#), and Wei-Fang Su, "Metal Doping Effects on TiO<sub>2</sub> Electron Transport Layer of Planar Perovskite-Structured Solar Cells", **2018 The 6<sup>th</sup> International Conference on the Characterization and Control of Interfaces for High Quality Advanced Materials (2018 ICCCI)**, July 9-12, Kurashiki, Japan.
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107. Tzu-Hao Lin, [Ming-Chung Wu\\*](#), Shun-Hsiang Chan, Ying-Han Liao, and Wei-Fang Su\*, "Fabrication and Characteristics of Reduced Lead Perovskite Solar Cell", **2017 IUMRS-ICA International Union of Materials Research Societies International Conference in Asia (IUMRS 2017)**, Nov. 5-9, Taipei, Taiwan. (Excellent Poster Award)
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110. Shun-Hsiang Chan, [Ming-Chung Wu\\*](#), Shih-Hsuan Chen, Wei-Fang Su, and Chao-Sung Lai, "Using Aligned P3HT/PMMA Fibers to Detect Volatile Organic Compounds", **2017 SSDM International Conference on Solid State Devices and Materials (SSDM 2017)**, Sep. 19-22, Sendai, Japan.
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118. Ying-Han Liao, Shun-Hsiang Chan, Tzu-Hao Lin, and [Ming-Chung Wu\\*](#), "Using Silver-Doped TiO<sub>2</sub> Electron Transport Layer to Enhance Photovoltaic Performance of Perovskite Structured Solar Cell", **2017 JSAP The 78<sup>th</sup> Japan Society of Applied Physics Autumn Meeting (JSAP 2017)**, Sep. 5-8, Fukuoka, Japan. **(Oral Presentation)**
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123. Shun-Hsiang Chan, [Ming-Chung Wu\\*](#), Tzu-Hao Lin, and Wei-Fang Su, "Enhanced Perovskite Solar Cells Performance Based on Barium Insertion in Methylammonium Lead Halide", **2017 MCARE Materials Challenges in Alternative and Renewable Energy (MCARE 2017)**, Feb. 20-24, Jeju Island, Korea. **(Oral Presentation)** **【NERPD2F0021(MOST105-2221-E-182-011)】**
124. Tzu-Hao Lin, [Ming-Chung Wu\\*](#), Shun-Hsiang Chan, Wei-Cheng Chen, Meng-Huan Jao, and Wei-Fang Su, "Calcium-Doped Perovskite Materials for Perovskite Photovoltaics", **2017 MCARE Materials Challenges in Alternative and Renewable Energy (MCARE 2017)**, Feb. 20-24, Jeju Island, Korea. **(Oral Presentation)** **【NERPD2F0021(MOST105-2221-E-182-011)】**
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